

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In Re Application of:

Applicants: : Mark Schmidt et al.  
Serial No. : 10/053,486  
Filing Date : January 16, 2002  
Title of Invention : POINT OF SALE (POS) STATION HAVING BAR CODE  
READING SYSTEM WITH INTEGRATED INTERNET-  
ENABLED CUSTOMER-KIOSK TERMINALS  
Examiner : Jared Fureman  
Group Art Unit : 2876  
Attorney Docket No. : 108-135USA000

Honorable Commissioner of Patents  
and Trademarks  
Washington, DC 20231

**INFORMATION DISCLOSURE STATEMENT**  
**UNDER 37 C.F.R. 1.97**

Sir:

In order to fulfill Applicant's continuing obligation of candor and good faith as set forth in 37 C.F.R. 1.56, Applicant submits herewith an Information Disclosure Statement prepared in accordance with 37 C.F.R Sections 1.97, 1.98 and 1.99.

The disclosures enclosed herewith are as follows:

**U.S. PUBLICATIONS**

<u>NUMBER</u>	<u>FILING DATE</u>	<u>TITLE</u>
6,457,644	September 29, 2000	ITEM CHECKOUT DEVICE INCLUDING A BAR CODE DATA COLLECTOR AND A PRODUCE DATA COLLECTOR
6,427,915	November 2, 1999	METHOD OF OPERATING CHECKOUT SYSTEM HAVING MODULAR CONSTRUCTION
6,354,498	December 24, 1997	METHOD FOR DISPLAYING THE STATUS OF A SELF-SERVICE CHECKOUT TERMINAL
6,330,973 B1	May 6, 1999	INTEGRATED CODE READING SYSTEMS INCLUDING TUNNEL SCANNERS

6,237,852 B1	September 9, 1998	MUTIPLE PLANE WEIGH PLATTER FOR MULTIPLE PLANE SCANNING SYSTEMS
6,223,986 B1	April 10, 1998	AIMING AID FOR OPTICAL DATA READING
6,213,397 B1	December 7, 1998	MULTIPLE WINDOW SCANNER AND METHOD FOR ADJUSTING OPTICAL PARAMETERS
6,167,381	February 6, 1998	SELF-SERVICE CHECKOUT TERMINAL
6,112,857	December 14, 1998	HAND-HELD SCANNER DEVICE HAVING A SMART CARD ASSOCIATED THEREWITH AND ASSOCIATED METHOD
6,098,885	October 3, 1997	COUNTERTOP PROJECTION LASER SCANNING SYSTEM FOR OMNIDIRECTIONAL SCANNING VOLUME PROJECTED ABOVE A COUNTERTOP SURFACE OF CODE SYMBOLS WITHIN A NARROWLY- CONFINED SCANNING
5,950,173	May 12, 1997	SYSTEM AND METHOD FOR DELIVERING CONSUMER PRODUCT RELATED INFORMATION TO CONSUMERS WITHIN RETAIL ENVIRONMENTS USING INTERNET- BASED INFORMATION SERVERS AND SALES AGENTS
5,886,336	December 12, 1996	MULTI-SIDE COVERAGE OPTICAL SCANNER
5,869,827	August 15, 1997	MULTIPLE WINDOW SCANNER AND METHOD FOR MULTIPLE FOCAL DISTANCE READING
5,837,988	February 26, 1997	MULTIPLE PLANE SCANNING SYSTEM FOR DATA READING APPLICATIONS
5,834,708	October 5, 1995	MULTIPLE PLANE WEIGH PLATTER

		FOR MULTIPLE PLANE SCANNING SYSTEMS
5,801,370	August 21, 1996	MULTI-DIRECTIONAL BAR CODE READING DEVICE
5,723,852	June 5, 1995	CHECKOUT COUNTER SCANNER HAVING MULTIPLE SCANNING SURFACES
5,684,289	October 30, 1995	OPTICAL SCANNER HAVING ENHANCED ITEM SIDE COVERAGE
5,557,093	December 28, 1994	COMPACT PROJECTION LASER SCANNER FOR PRODUCING A NARROWLY CONFINED SCANNING VOLUME FOR OMNI-DIRECTIONAL SCANNING OF CODE SYMBOLS THEREIN, WHILE PREVENTING UNINTENTIONAL SCANNING OF CODE SYMBOLS ON NEARBY OBJECTS
5,495,097	September 14, 1993	PLURALITY OF SCAN UNITS WITH SCAN STITCHING
5,491,328	January 26, 1994	CHECKOUT COUNTER SCANNER HAVING MULTIPLE SCANNING SURFACES
5,459,308	October 17, 1995	DUAL APERTURE OPTICAL SCANNER
5,256,863	November 5, 1991	IN-STORE UNIVERSAL CONTROL SYSTEM
5,229,588	September 30, 1991	DUAL APERTURE OPTICAL SCANNER
5,206,491	February 28, 1991	PLURAL BEAM, PLURAL WINDOW MULTI-DIRECTION BAR CODE READING DEVICE
5,153,585	December 26, 1991	ELECTRONIC INPUT-DISPLAY APPARATUS
4,766,298	November 10, 1986	LOW-PROFILE PORTABLE UPC OPTICAL SCANNER

4,652,732	September 17, 1985	LOW-PROFILE BAR CODE SCANNER
3,902,048	July 11, 1974	OMNIDIRECTIONAL OPTOMECHANICAL SCANNING APPARATUS

### FOREIGN PUBLICATIONS

<u>NUMBER</u>	<u>PUBLICATION DATE</u>	<u>TITLE</u>
WO 99/01839	January 14, 1999	METHOD AND DEVICE FOR READING OF A BARCODE ON AN ARTICLE
0 663 643 A2	July 19, 1995	AUTOMATIC PACKAGE LABEL SCANNER
US 2001/0017320	August 30, 2001	PROJECTION LASER SCANNER FOR SCANNING BAR CODES WITHIN A CONFINED SCANNING VOLUME

### TECHNICAL PUBLICATIONS

Product Brochure for the Magellan SL 360-Degree Scanner/Scale by PSC Inc., Webster, NY, February 2000, pages 1-2.

### INTERNATIONAL SEARCH REPORTS

<u>International App. No.</u>	<u>Filing Date</u>
PCT/US03/01738	April 6, 2003

### STATEMENT OF PERTINENCE

U.S. Patent No. 6,457,644 to Collins, Jr. et al. discloses an item checkout device which combines a produce data collector with an optical bar code data collector. The item checkout device includes a housing, a bar code data collector within the housing, and a produce data collector within the housing. In a preferred embodiment, the item checkout device includes an optical bar code data collector including a first housing, a scale within the first housing, a weigh plate on the scale including a first window for allowing scanning light beams from optical bar

code data collectors to pass and a second window, a light source for illuminating a produce item on the second window with substantially uniform light, a light separating element for splitting light collected from the produce item into a plurality of different light portions having different wavelengths, a detector for converting energy in the plurality of light portions into a plurality of electrical signals, and control circuitry which digitizes the plurality of electrical signals to produce a digital spectrum from the produce item which contains information to identify the produce item for the purpose of determining its unit price.

U.S. Patent No. 6,427,915 to Wilke, Jr. et al. discloses a checkout terminal which includes a first bagging station and a second bagging station which is spaced apart from the first bagging station. The terminal also includes an item transport mechanism. The item transport mechanism is configured to transport a first item for purchase of the number of items for purchase to the first bagging station when the item transport mechanism is positioned in the first transport position. The item transport mechanism is further configured to allow a second item for purchase of the number of items for purchase to be advanced to the second bagging station when the item transport mechanism is positioned in the second transport position. A method of operating a checkout terminal is also disclosed.

U.S. Patent No. 6,354,498 to Lutz discloses a method of operating a self-service checkout terminal which includes the step of detecting an improper-terminal-use activity and generating an improper-use control signal in response thereto. The method also includes the step of operating a status device in a first mode of operation in response to generation of the improper-use control signal. Moreover, the method includes the step of generating a first intervention signal if the log value has a predetermined relationship to a log threshold. The method also includes the step of operating the status device in a second mode of operation in response to generation of the first intervention control signal, wherein the first mode of operation is different from the second mode of operation. The method yet further includes the step of generating an end-of-itemization control signal in response to a user's indication that the user has no further items to enter into the checkout terminal. The method also includes the step of operating the status device in a third mode of operation if (1) the end-of-itemization signal has been generated, and (2) the status device was operating in the second mode of operation when the end-of-itemization control signal is generated, wherein the third mode of operation is different from each of the first mode of operation and the second mode of operation.

U.S. Patent No. 6,330,973 B1 to Bridgell et al. discloses systems and techniques for reading optical codes, and more particularly to code reading systems with plural imaging or scanning modules pointed in various directions toward a target volume, which increase the likelihood that a code symbol on an arbitrarily oriented object in the target volume will be read. Other aspects of the invention relate to use and configuration of hand held readers, docking devices, operator side rails, arched tunnels and mirrors for increasing the coverage of the system.

U.S. Patent No. 6,237,852 B1 to Svetal et al. Discloses a multi-plane scanner which has a dual plane scanner with a horizontal window and a vertical window and a load cell/weigh platter weighing apparatus such that the weigh platter itself is a dual plane object with vertical and horizontal sections. The size and orientation of the planes of the weigh platter correspond to the size and orientation of the scan windows of the dual plane scanner, and each plane of the weigh platter has a transparent area (typically central), or "platter window", corresponding to a

respective scan windows of the scanner for allowing transmission of scanned optical beams and optical barcode signals through each of the planes of the weigh platter. The platter is sufficiently rigid to permit accurate weighing, whether the object being weighed is placed solely on the horizontal section of the platter or in part on the vertical section. The vertical and horizontal sections of the platter are sealed together to prevent passage of debris therebetween.

U.S. Patent No. 6,223,986 B1 to Bobba et al. discloses a data reading system including an aiming aid system which creates a highly visible target or image in the scan volume at a preferred location for placement of the article to be scanned. In a preferred application, an overhead bar code scanner employs a rotating polygon mirror which scans one or more laser beams off pattern mirrors creating a complex pattern of scan lines down into the scan volume whereby the aiming aid is created by directing a laser beam onto a scanning mirror positioned on top of the polygon mirror generally along the rotational axis of the polygon mirror and then directing that beam out into the scan volume in the desired pattern, such as a circular aiming aid. Alternately, the aiming aid may be a multi-dimensional graphical image formed by holographic or diffractive optics.

U.S. Patent No. 6,213,397 B1 to Rando discloses a multiple window data reading device and method for reading symbols such as bar codes through each window, including sensing conditions from each window and adjusting optical parameters for controlling data reading control through each of the windows.

U.S. Patent No. 6,167,381 to Swaine et al. discloses a self-service checkout terminal which includes a base having a bagwell defined therein. The terminal also includes a first counter supported on the base. The first counter has a first surface which is positioned at a first height. The terminal further includes a scanner secured at a first end of the first counter. The terminal yet further includes an automated teller machine secured at a second end of the first counter. Moreover, the terminal includes an arcuate shaped second counter secured to the first counter, the second counter having a second surface which is positioned at a second height. The first counter has a bagwell opening defined therein at a location interposed between the scanner and the automated teller machine. The bagwell opening is aligned with the bagwell. The first height is less than the second height.

U.S. Patent No. 6,112,857 to Morrison discloses a hand-held entry device which includes a code entry device for allowing a user to enter a product code associated with a first item of the items for purchase. The hand-held entry device also includes a smart card having (i) a processor electrically coupled to the code entry device, and (ii) a card memory device electrically coupled to the processor. The card memory device has stored therein a plurality of instructions which, when executed by the processor, causes the processor to store a first record corresponding to the product code in a transaction table maintained in the card memory device when the user enters the product code associated with the first item. A method of operating a retail system is also disclosed.

U.S. Patent No. 6,098,885 to Knowles et al. discloses a bar code scanner for stationary disposition at a counter for projecting an omnidirectional laser scanning pattern comprising first, second, third, fourth and fifth groups of parallel scan lines within a relatively narrow, yet diverging, volume, e.g., pyramid, cone, etc., centered about a projection axis. The scanner

includes a compact housing mounted on an adjustable base. The housing includes a window, five stationary mirrors, a laser diode, a rotating reflective polygon for sweeping the laser beam from the diode across the mirrors and out a window so that the projection axis is substantially but not precisely perpendicular to the window. The scanner also includes a fixed curved collecting mirror and a concentrating lens to focus light which is reflected off of a bar code to a photodetector. One mirror extends along an axis parallel to the transverse axis to produce the first group of scan lines. The second and third mirrors are disposed opposite each other close to and laterally of the polygon and extending along respective axes at a small acute angle, e.g., 8 degrees, to the longitudinal axis to produce respective ones of the second and third group of scan lines. The fourth and fifth mirrors are disposed between the second and third reflecting mirrors, respectively, and each extends along a respective axis at a substantial acute angle, e.g., 48 degrees, to the longitudinal axis to produce respective ones of the fourth and fifth group of scan lines.

U.S. Patent No. 5,950,173 to Perkowski discloses a system and method for finding and serving consumer product-related information over the Internet to consumers in retail shopping environments, as well as home and work, and on the road. The system includes Internet information servers which store information pertaining to Universal Product Number (e.g. UPC number) preassigned to each consumer product registered with the system, along with a list of Uniform Resource Locators (URLs) that point to the location of one or more information resources on the Internet, e.g. World Wide Web-sites, which relate to such registered consumer products. Upon entering the UPC number into the system using a conventional Internet browser program running on any computing platform or system, the menu of URLs associated with the entered UPC number is automatically displayed for user selection. The displayed menus of URLs are categorically arranged according to specific types of product information such as, for example: product specifications and operation manuals; product wholesalers and retailers; product advertisements and promotions; product endorsements; product updates and reviews; product warranty/servicing; related or complementary products; product incentives including rebates, discounts and/or coupons; manufacturer's annual report and 10K information; electronic stock purchase; etc. Web-based techniques are disclosed for collecting the UPC/URL information from manufacturers and transmitting the same to the Internet-based databases of the system.

U.S. Letters Patent 5,886,336 to Tang et al. discloses a bioptical-type optical scanner which includes a housing having first and second obliquely adjoining windows. Disposed in the housing is a laser for projecting a laser beam against a rotatable spinner having a plurality of mirrored facets for sequentially reflecting the laser beam to effect a scan beam. A plurality of pattern mirrors are optically aligned with the spinner for reflecting the scan beam through the first and second windows to effect a plurality of individual scan lines arranged in first and second patterns corresponding with the first and second windows. The pattern mirrors include a triad set of mirrors optically aligned in series between the spinner and the first window for scanning the first scan pattern to a back edge of the first window for scanning at least the back side of a multisided item.

U.S. Letters Patent 5,869,827 to Rando discloses a two window bioptical-type laser scanning system (the two windows are angled in a V fashion within a tunnel) wherein multiple laser sources cooperate with a rotating polygonal mirror and mirror groups to produce laser

scanning beams that pass through the two windows.

U.S. Letters Patent No. 5,837,988 to Bobba et al. discloses an optical system and method for data reading. The preferred system is directed to a scanner which includes a multiple beam source, such as a laser diode and a beam splitter which generates a first optical beam and a second optical beam, the first optical beam being directed toward one side of a scanning optical element such as a rotating polygon mirror and to a first mirror array, the second optical beam is being simultaneously directed toward a second optical element such as another side of the rotating polygon mirror and then to a second and a third mirror array. The first mirror array is configured to generate a scan pattern through a vertical window and the second and third arrays are configured to generate scan patterns passing through a horizontal window. In combination, the three mirror arrays generate three sets of scan lines so as to scan the bottom and all lateral sides of an object being passed through the scan volume.

U.S. Patent No. 5,834,708 to Svetal et al. discloses a multi-plane scanner having a dual plane scanner with a horizontal window and a vertical window and a load cell/weigh platter weighing apparatus such that the weigh platter itself is a dual plane object with vertical and horizontal sections. The size and orientation of the planes of the weigh platter correspond to the size and orientation of the scan windows of the dual plane scanner, and each plane of the weigh platter has a transparent area (typically central), or "platter window", corresponding to a respective scan windows of the scanner for allowing transmission of scanned optical beams and optical barcode signals through each of the planes of the weigh platter. The platter is sufficiently rigid to permit accurate weighing whether the object being weighed is placed solely on the horizontal section of the platter or in part on the vertical section. The vertical and horizontal sections of the platter are sealed together to prevent passage of debris therebetween.

U.S. Letters Patent No. 5,801,370 to Katoh et al. discloses a multi-directional bar code reading device for reading an object that is to be read by projecting scanning beams from many directions, and includes a plurality of mirrors arranged around a beam scanning unit and a plurality of beam sources for emitting beams toward the beam scanning unit. The beam scanning unit is irradiated with beams generated from the plurality of beam sources, scanning beam are reflected by the plurality of mirrors and are projected from a plurality of directions onto an object to be read, and light reflected from the object is detected in order to read bar codes on the object to be read.

U.S. Letters Patent 5,723,852 to Rando et al. discloses a bioptical-type laser scanning bar code scanning system for use in retail checkout having a scanner housing; a plurality of surfaces facing a scan volume from different directions; and sets of pattern mirrors positioned adjacent the respective surfaces, the housing being positioned above the scan volume and containing one or more laser beam modules and/or a scanning mechanism for producing scanning beams which are routed to the pattern mirrors and out through the respective surfaces into the scan volume.

U.S. Letter Patent 5,684,289 to Detwiler et al. discloses a bi-optical laser scanning system which employs a single laser beam to produce horizontal and vertical scan patterns. The laser scanning system includes a housing having vertical and horizontal apertures, a laser beam source, a mirrored spinner having a plurality of facets with different elevation angles for reflecting the laser beam in a plurality of directions, and a plurality of pattern mirrors within the



housing for reflecting the laser beam from the spinner through the horizontal and vertical apertures to an article having a bar code label to be scanned. The laser scanning system also includes an optical transceiver for passing the laser beam and for collecting reflected light from the scanner article and a photodetector for generating signals representing the intensity of the light reflected from the article.

U.S. Patent No. 5,557,093 to Knowles, et al. discloses a laser projection scanner wherein a single VLD cooperates with a rotating mirror and an array of beam folding mirrors to project an omni-directional scan pattern through a scanning window, thereby producing a narrowly confined laser scanning volume for omni-directional scanning of bar code symbols located therein, while preventing inadvertent scanning of code symbols on nearby objects.

U.S. Letters Patent No. 5,495,097 to Katz et al. discloses a scanning system which has a plurality of optical scan units. Each optical scan unit includes means for emitting light toward an item bearing an indicia. Each optical scan unit also includes means for receiving light reflected from the indicia and generating signals corresponding to the intensity of the reflected light. Also provided is a central control unit which includes means for combining together signals corresponding to the signals generated by at least two of the scan units to fully decode information contained on the indicia.

U.S. Letters Patent 5,491,328 to Rando discloses a bioptical-type bar code scanning system for use in retail checkout in which the scanning system has a conveyor defining a first surface and a second surface disposed adjacent the first surface and arranged generally orthogonally thereto forming a scan volume therebetween, sets of pattern mirrors positioned adjacent the respective surfaces, and one or more laser beam sources associated with a rotating mirror polygon for producing scan patterns which are routed to the pattern mirrors and out through the respective surfaces into the scan volume.

U.S. Letter Patent 5,459,308 to Detwiler et al. discloses a bioptical-type optical scanner which employs a single laser beam in order to produce horizontal and vertical scan patterns. The optical scanner includes a housing having first and second apertures, a laser beam source, a mirror spinner having a plurality of facets with different elevation angles for reflecting the laser beam in a plurality of directions, and a plurality of pattern mirrors within the housing for reflecting the laser beam from the spinner through the first and second apertures to an article having a bar code label to be scanned. The optical scanner also includes an optical transceiver for passing the laser beam and for collecting reflected light from the scanned article and a photodetector for generating signals representing the intensity of the light reflected from the article.

U.S. Patent No. 5,256,863 to Ferguson et al. discloses a system for automating data acquisition and processing at a checkstand point-of-sale in a retail outlet. Preferred embodiments include a first local area network of POS terminals for initiating merchandise purchase transactions. All of the purchase transactions in the first local area network are passively monitored to acquire primary purchase data. A second local area network of lane terminal devices inputs secondary data, including discount coupon information, check information and bank card information to a universal system controller. The universal system controller mirrors the primary information, processes the primary and the secondary information, and generates

output information to the POS terminals of the first local area network via the lane terminal devices of the second local area network, the output information including coupon verification data, coupon amount data, check verification data and bank card verification data.

U.S. Letter Patent 5,229,588 to Detwiler discloses a bioptical-type optical scanner which employs a single laser beam in order to produce horizontal and vertical scan patterns. The optical scanner includes a housing having first and second apertures, a laser beam source, a mirror spinner having a plurality of facets with different elevation angles for reflecting the laser beam in a plurality of directions, and a plurality of pattern mirrors within the housing for reflecting the laser beam from the spinner through the first and second apertures to an article having a bar code label to be scanned. The optical scanner also includes an optical transceiver for passing the laser beam and for collecting reflected light from the scanned article and a photodetector for generating signals representing the intensity of the light reflected from the article.

U.S. Patent No. 5,206,491 to Katoh et al. discloses a multi-directional bar code reading device for reading an object that is to be read by projecting scanning beams from many directions, which includes a plurality of mirrors arranged around a beam scanning unit and a plurality of beam sources for emitting beams toward said beam scanning unit. The beam scanning unit is irradiated with beams generated from the plurality of beam sources, scanning beams are reflected by the plurality of mirrors and are projected from a plurality of directions onto an object to be read, and light reflected from the object is detected in order to read bar codes on the object to be read.

U.S. Patent No. 5,153,585 to Negishi et al. discloses an electronic input-display apparatus which includes a casing having a microprocessor therein, a display device located above the casing and spaced from the casing by a predetermined distance, a data-input keyboard provided for the casing, a weighting section provided on the casing, and a radio transmitting/receiving device fitted in a pocket formed in the display device with an antenna extending upward from the display device. The microprocessor, the display device, the keyboard, the measuring section, and the radio transmitting/receiving device are electrically connected together.

U.S. Patent No. 4,800,256 to Broockman et al. discloses a holographic laser scanner which includes circuitry for adjusting the frequency with which an analog photodetector signal is amplified in accordance with the focal length of the scanning beam produced by the active holographic facet, as shown in two embodiments. In one embodiment, facet-edge signals are used to track the facets. A processor retrieves a predetermined frequency scaling factor appropriate for each facet. In the other embodiment, a holographic disk carries an auxiliary data track. The track has timing indicia with spatial frequencies dependent upon the focal length of the adjacent facet. The timing indicia are used to control the output of a voltage controlled oscillator in a circuit including a phase locked loop.

U.S. Patent No. 4,766,298 to Meyers discloses a portable, stand-alone desk-top, optical scanning apparatus which includes a first housing member positioned on the top surface of a checkout counter in which is mounted on the floor portion of the housing member, a light emitting element for projecting scanning light beams within the housing member, and a floor-mounted multi-faceted rotating mirror for directing the light beams at a plurality of floor-mounted twisted mirror members which reflect the light beams through an aperture in the cover

portion of the housing member, said light beams forming a pattern for scanning a bar code label on a merchandise item positioned on top of the housing adjacent the aperture. Light reflected from the label is directed back through the housing member towards a photodetector which generates electrical signals for processing by an electrical circuit located within the housing. A second housing member remotely positioned from said first housing member contains a power supply for operating the scanning apparatus and a laser for generating the light beams. A cable transmits the electrical power and the light beams to the light emitting element from the second housing member.

U.S. Patent No. 4,652,732 to Nickl discloses an apparatus for scanning a bar code affixed to an object and providing an electrical signal indicative of the scanned bar code. The apparatus includes a housing having a base portion and a window portion with the window portion being mounted above a rear section of the base portion. A forward section of the base portion has a flat top surface while the window portion has an optically transmissive window mounted in a side facing the top surface. The region above the top surface and adjacent the window defines a scanning region. Means are mounted within the housing for generating first, second and third scan patterns each comprised of a plurality of substantially parallel spaced apart light scan lines.

U.S. Patent No. 3,902,048 to Fleischer et al. discloses an omnidirectional optomechanical system arranged for scanning bar coded labels passing a rectangular scanning window with a plurality of interlaced scans in a plurality of differing directions whereby the labels are completely scanned irrespective of orientation. The interlaced and plural directive scanning rays are generated by directing a beam of light, from a laser or like light source, onto a rotating multifaceted mirror for deflecting the light beam into a mirror tunnel which is positioned at a predetermined angle at which there is further deflection of the light beam within the mirror tunnel in a number of laterally displaced and crossed scanning segments as appearing at the scanning window located at the end of the tunnel. Alternately, the mirror tunnel and the rotating mirror serve in the sensing of the label under uniform overall illumination.

WIPO Publication No. WO 99/01839 by Scantech B.V. discloses a device for reading a code on an article, comprising: a housing provided with at least two windows for passage of radiation which are disposed at a relative mutual angle; radiation source means for transmitting radiation to the article, which radiation source means are arranged in the housing and comprise at least two separate radiation sources; a rotatable polygonal mirror for reflecting radiation coming from the radiation source means; a number of fixedly disposed mirrors for reflecting through the respective windows the radiation coming from the polygonal mirror; and detection means for detecting the radiation scattered by the code.

EPO Publication No. 0 663 643 A2 by Spectra-Physics Inc. discloses a point of sale bar code scanner, such as a grocery store check-out label scanner, that is attendant-free and completely automated in providing a listing or a total pricing of a customer's selected items. At each automated check-out, the customer initiates the process, places items on a conveyor, which carries each item separately through a scanner. The scanner reads all sides of each package, including the bottom of the package, since the bar code label could be located on any surface. Serial conveyors are used, and gates preferably control the advancement of items onto a conveyor, which will carry the item through the scanning area, such that only one item can be scanned at a time. The conveyor in the scanning area includes a series of belt strips through

which an upwardly scanned beam can read the package bottom. Various methods and systems are disclosed for handling "no reads". The customer signifies termination of the process at the appropriate time. In the process the customer receives some sort of identification tag.

U.S. Publication No. 2001/0017320 to Knowles et al. discloses a bar code scanner for projecting a scanning pattern comprising a plurality of groups of scan lines, where each scan line in a given group is substantially parallel to other scan lines in the same group. The scanning pattern is provided within a relatively narrow, yet diverging, volume, such as a pyramid, cone, etc., as referenced to a projection axis. The scanner includes a housing having a window. Within the housing are a plurality of stationary mirrors, a laser beam generating mechanism, a rotating reflective polygon for sweeping the laser beam across the mirrors and a window, such that the projection axis intersects the window. The scanner also includes a fixed collecting mirror and a concentrating lens to focus light which is reflected off a bar code to a photodetector. One mirror extends along an axis substantially parallel to the transverse axis to produce a first group of scan lines. The second and third mirrors are disposed opposite each other laterally of the polygon and extending along respective axes at a first acute angle, illustratively 8 degrees, to the longitudinal axis to produce respective ones of a second and a third group of scan lines. The fourth and the fifth mirrors, respectively, each extend along a respective axis at a second acute angle, illustratively 48 degrees to the longitudinal axis, to produce respective ones of a fourth and a fifth group of scan lines.


The product brochure (dated February 2000) for the Magellan SL<sup>TM</sup> 360-Degree Scanner/Scale describes the PSC, Inc. bioptical bar code scanner capable of simultaneously reading the bottom and all four sides of a package.

A separate listing of the above references on PTO Form 1449 and a copy of these references are enclosed herewith for the convenience of the Examiner.

The Commissioner is also hereby authorized to charge the requisite fee of \$180.00, as well as any fee deficiencies, to Deposit Account No. 16-1340.

Respectfully submitted,

Dated: November 10, 2003


  
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A separate listing of the above references on PTO Form 1449 and a copy of these references are enclosed herewith for the convenience of the Examiner.

The Commissioner is also hereby authorized to charge the requisite fee of \$180.00, as well as any fee deficiencies, to Deposit Account No. 16-1340.

Respectfully submitted,

Dated: November 10, 2003

  
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Substitute for form 1449A/PTO

**INFORMATION  
DISCLOSURE STATEMENT  
BY APPLICANT**

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**Complete If Known**

Application Number	10/053,486
Filing Date	January 16, 2002
First Name Inventor	Mark Schmidt et al.
Group Art Unit	2876
Examiner Name	Jared Fureman
Attorney Docket Number	108-135USA000

**U.S. PATENT DOCUMENTS**

Examiner Initials	Cite No.	U.S. Patent Documents		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Intr'l Class / Sub Class
		Number	Kind Code (if known)			
		6,457,644		Collins, Jr. et al.	10/01/2002	G06K 7/10
		6,427,915		Wilke, Jr. et al.	08/06/2002	G06K 15/00
		6,354,498		Lutz	03/12/2002	G06F 17/60
		6,330,973 B1		Bridgelall et al.	12/18/2001	G06K 7/10
		6,237,852 B1		Svetal et al.	05/29/2001	G06K 7/10
		6,223,986 B1		Bobba et al.	05/01/2001	G06K 7/10
		6,213,297 B1		Rando	04/10/2001	G06K 15/00
		6,167,381		Swaine et al.	12/26/2000	G06F 17/60
		6,112,857		Morrison	09/05/2000	A47F 9/04
		6,098,885		Knowles et al.	08/08/2000	G06K 7/10
		5,950,173		Perkowski	09/07/1999	G06F 17/60

U.S. PATENT DOCUMENTS						
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EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance not considered. Include copy of this form with next communication to applicant.

(INFORMATION DISCLOSURE STATEMENT – SECTION 9 PTO-1449)